

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**CONSUMER PROTECTION AND SAFETY DIVISION
SAFETY AND RELIABILITY BRANCH**

**RESOLUTION SU-53
DATE: November 21, 2002**

RESOLUTION

RESOLUTION SU-53, ORDER GRANTING SANTA CLARA VALLEY TRANSPORTATION AUTHORITY A VARIANCE FROM GENERAL ORDER 95, RULE 37, TABLE 1, CASE 3-C AT WEST SAN CARLOS STREET NEAR THE WEST SAN CARLOS OVERPASS AND RULE 74.4-E UNDER THE OVERPASS.

SUMMARY

1. By letter of October 25, 2001, the Santa Clara Valley Transportation Authority (VTA) petitions the Commission to authorize a variance from General Order 95 (G.O. 95), Rule 37, Table 1, Case 3-C at West San Carlos Street near the West San Carlos overpass in San Jose and a variance from G.O. 95, Rule 74.4-E under the overpass.
2. Whereas G.O. 95, Rule 37, Table 1, Case 3-C requires a clearance of 19 ft. between overhead trolley conductors and thoroughfares, this variance would permit VTA to lower the overhead trolley conductors to 14.34 ft. above the surface of the street immediately to the south of the West San Carlos overpass.
3. Whereas G.O. 95, Rule 74.4-E requires a clearance of 14 ft. between overhead trolley conductors and rails under a bridge, this variance would permit VTA to lower the overhead trolley conductors to 13.85 ft. above the rails under the West San Carlos Street overpass.
4. This resolution authorizes the variance from G.O. 95 Rule 37, Table 1, Case 3-C for the street immediately to the south of the West San Carlos overpass and a variance from G.O. 95, Rule 74.4-E under the West San Carlos Street overpass as specified above.

BACKGROUND

The Santa Clara Valley Transportation Authority (VTA) is currently finalizing the design of the Vasona Light Rail Project. This project is a 5.5-mile rail extension program with a projected service date of November, 2004. The design of the Vasona Light Rail Project includes an overhead contact system (OCS) consisting of a full catenary (messenger wire, hangers, and a trolley or contact wire) to supply traction power for the propulsion of light rail vehicles. The system will operate at a nominal voltage of 750 VDC.

It was identified during the design development stage of the OCS that a section of the extension at West San Carlos Street near the West San Carlos Street overpass can not be designed in strict compliance with General Order 95 (G.O. 95) due to an unavoidably

restricted vertical clearance. As currently in effect, G.O. 95, Rule 37, Table 1, Case 3-C requires a minimum vertical clearance for a trolley contact conductor of 19 ft. above the surface of the road. Footnote eee allows this to be reduced to 18 ft. for systems operating below 1,000 volts. Likewise, Rule 74.4E, requires a minimum vertical clearance for a trolley contact conductor of 14 ft. under a bridge.

The existing West San Carlos Street overpass, which creates the restricted vertical clearance and under which the proposed trolley wires will run, is a multi-span concrete I-Beam bridge that passes over the existing Union Pacific Railroad track on the Vasona Line. Directly adjoining the overpass is San Carlos Street, which ends at a vacant manufacturing facility located some 100 ft. down the road. Modifying the existing overpass by raising it to create the required clearance is infeasible given the size of the structure and the requirement to keep it operational during construction. Lowering the pavement and the tracks to create the necessary clearance has likewise been ruled infeasible due to street pavement conformations, existing freight track profile immediately adjacent to the light rail alignment, drainage considerations, and impacts on the existing bridge structural foundations.

Therefore, by letter of October 25, 2001, the Santa Clara VTA petitioned the Commission to authorize a variance from G.O. 95 permitting VTA to lower the trolley wires to an elevation of 14 ft. above the street surface immediately to the south of the West San Carlos overpass and 13.91 ft. above the tracks under the overpass. This request was subsequently amended to 14.34 ft. above street surface and 13.85 ft. under the overpass.

NOTICE

Notice of the variance application was made by the Santa Clara VTA in direct written communication to the potentially affected parties. Santa Clara VTA states that a copy of the variance application letter was mailed and distributed to said parties.

PROTEST

No protest of the variance application has been filed with the Commission.

DISCUSSION

The Safety and Reliability Branch (SRB) evaluated this variance request from the vantage point of its impact on public safety. Factors influencing the SRB's evaluation included the presence of safety devices already in place (including the detection for over-current and current rate-of-rise), as well as additional safety enhancements proposed by the Santa Clara VTA in compensation for the increased risk posed by the restricted vertical clearance over San Carlos Street as follows:

- VTA will install highly visible warning signs with reflective lettering at all access streets in advance of this location on San Carlos Street to warn the operating motorists of the impending restrictions.
- VTA will install a “warning portal” on all approach lanes to the location on San Carlos Street to physically determine the height of oncoming vehicles and provide motorists with an active warning system (hanging chains with clearance bumpers attached at the ends).
- VTA will indicate on all warning signs the specific height restriction.
- VTA traction power substations will contain protective devices to interrupt the flow of electricity in the event the trolley wire is dropped to the ground.

California Department of Transportation Vehicle Code, Section 35250, requires that vehicles on public roadways be restricted to a maximum height of 14 ft. At a height of 14.34 ft., the proposed contact wires will present a restriction to a small percentage of large vehicles crossing over West San Carlos Street. A detour along Auzerai Ave., which runs parallel and adjacently to West San Carlos Street, will allow such large vehicles to safely bypass the restricted section. With the installation of warning portals and other safety measures proposed by VTA, as well as the availability of alternate routes, the SRB believes that the additional risk to pedestrians and vehicles posed by granting of the variance from G.O. 95, Rule 37, Table 1, Case 3-C is acceptable.

Lastly, the area under the West San Carlos overpass will be wholly occupied by an existing Union Pacific Railroad track as well as the proposed Vasona Light Rail track. As the area under the overpass will accommodate neither automobile traffic nor regular pedestrian traffic, a reduction of the overhead conductor clearance from 14 ft. to 13.85 ft. by granting the variance from G.O. 95, Rule 74.4-E will not materially affect public safety.

COMMENTS

This is an uncontested matter in which the decision grants the requested relief. Therefore, pursuant to Public Utilities Code § 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

FINDINGS

1. The SRB, after a review of the blueprints and engineering materials and visiting the site, determined that lowering the overhead contact wires to 14.34 ft. above the surface of the street immediately to the south of the West San Carlos overpass and to 13.85 ft. under the overpass would not significantly impact public safety.
2. The SRB recommends that this variance request be approved, contingent on safety measures proposed by VTA as described earlier.
3. Furthermore, the granting of the variance applies only to this specific request and should not be interpreted as applicable to the entire construction project.

THEREFORE, IT IS ORDERED THAT:

1. Santa Clara Valley Transportation Authority be granted a variance from General Order 95, Rule 37, Table 1, Case 3-C to lower the overhead trolley conductors to 14.34 ft. above the surface of the road immediately to the south of the West San Carlos overpass and to 13.85 ft. under the overpass.
2. This resolution shall be effective immediately.

I hereby certify that this Resolution was adopted by the California Public Utilities Commission at its regular meeting on November 21, 2002. The following Commissioners approved it:

WESLEY M. FRANKLIN
Executive Director

LORETTA M. LYNCH
President

HENRY M. DUQUE
CARL W. WOOD
MICHAEL R. PEEVEY
Commissioners

Commissioner Geoffrey F. Brown, being necessarily absent, did not participate.